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Photosphere and corona

The part we call the surface is not solid. The outer atmosphere gets hotter as it leaves. Both sentences are official.

NASA Science also says, as a safety note and not as an observing guide: “never look directly at the Sun without protecting your eyes.”

The official layer	Official wording
Photosphere	“The part of the Sun we see from Earth – the part we call the surface – is the photosphere.” “The Sun doesn’t actually have a solid surface because it’s a ball of plasma.” NASA Science gives about 10,000°F (5,500°C) and about 250 miles of thickness. The fact sheet gives an effective temperature of 5,772 K and a thickness of about 500 km. Both official toolkits are kept.
Chromosphere and corona	“Above the Sun’s surface are its thin chromosphere and the huge corona (crown).” “In one of the Sun’s biggest mysteries, the Sun’s outer atmosphere, the corona, gets hotter the farther it stretches from the surface,” reaching up to 3.5 million°F (2 million°C). “The source of coronal heating is a major unsolved puzzle.”
In a total eclipse	“The chromosphere looks like a fine, red rim around the Sun, while the corona forms a beautiful white crown.” Visible light from those upper layers is “usually too weak to be seen against the brighter photosphere.”

A short quiz

1. Is the photosphere a solid surface?
2. Does the corona get cooler as it stretches away from the surface?
3. When, officially, can you see the corona in ordinary white light?

Answers. No — it is the first layer of the solar atmosphere, and the Sun is a ball of plasma. No — it gets hotter, which official wording still calls a mystery. During a total solar eclipse, when the Moon covers the photosphere.

Wording from NASA Science, “Sun: Facts,” and the NASA / NSSDCA Sun Fact Sheet, re-checked 18 November 2026. sun.planets.im is independent of NASA. Typographic sheet: no photographs inside. Never look directly at the Sun without protecting your eyes.